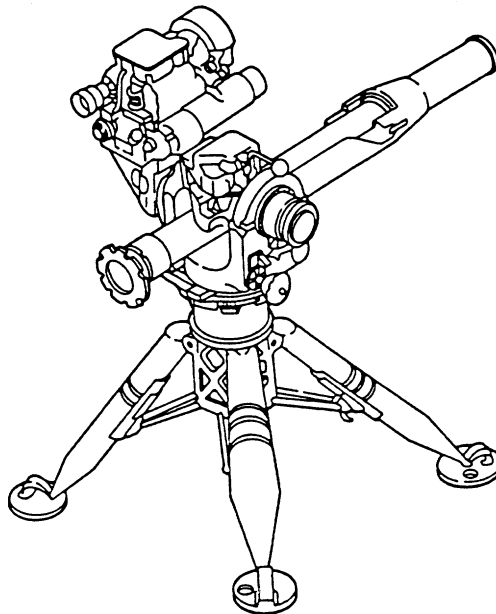


## M220A1 TOW



SYSTEM IDENTIFIERS	
NOMENCLATURE:	Launcher, Tubular, Guided Missile M220A1
SSN:	C59901
LIN:	L45740
NSN:	1440-01-104-9834
AMIM NO:	I106
EIC:	PA
FUEL TYPE:	-----

SYSTEM DESCRIPTION
<p>The M220A1 TOW launcher is a crew portable, heavy anti-tank missile system that can be operated from a ground-mounted tripod or mounted on a light vehicle. The system consists of a launcher, night vision sight, and wire-guided missile that functions interactively for effective performance against tanks, armored vehicles, and fortifications. The TOW missile is guided to the target along the gunner's line of sight by a command wire spooled out behind the missile. The gunner must keep the sighting reticle on target for up to 20 seconds to engage at a range of 3,750 meters.</p>

The list below identifies components associated with the weapon/materiel system.

### **M220A1 TOW**

<b><u>LIN</u></b>	<b><u>NSN</u></b>	<b><u>NOMENCLATURE</u></b>
A70349	5855-01-173-0808	NIGHT VISION SIGHT EQUIP SET, TOW
A70772	4935-01-070-3427	ADAPTER TEST SET GUIDED MISSILE SYS
C84041	4935-01-082-7023	CONTACT SUPPORT SET (TOW-DRAGON)
D99860	6130-01-018-9786	CHARGER BATTERY, (TOW) PP-4884
M51419	6920-00-223-4919	MISSILE SIMULATION ROUND (TOW)
N04982	5855-01-083-9053	EQUIPMENT SET, NIGHT VISION
T14493	4935-00-150-5905	SHOP EQUIPMENT, GM SYSTEM
T79200	4935-01-070-3426	TEST SET, AN/TSM-140A
X04584	6920-00-179-7320	TRAINING SET, GM SYSTEM

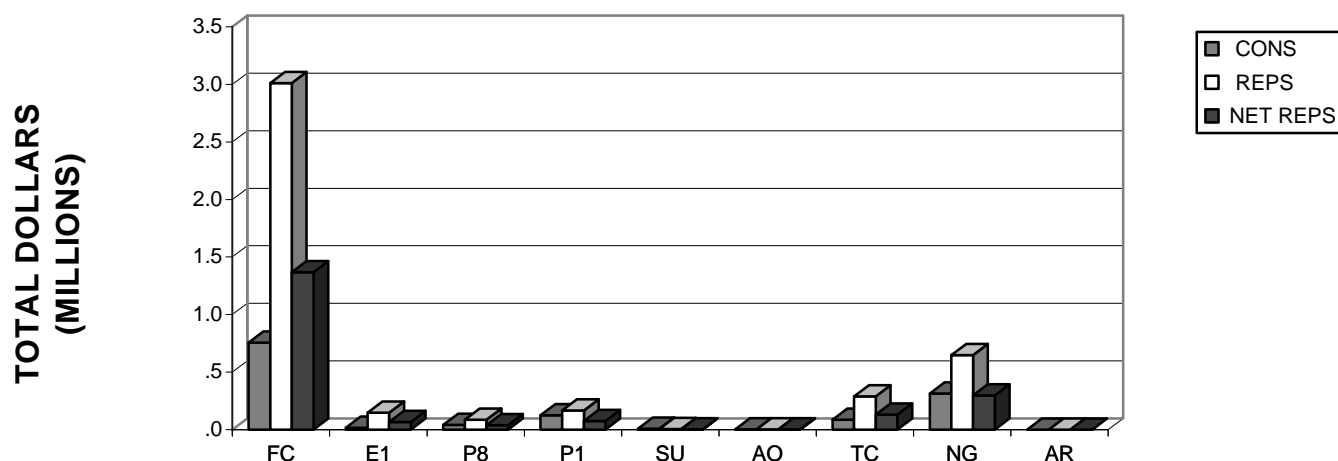
This summary provides an overview of FY 94 Total Army operating and support costs and other information for the weapon system. Average cost per system is displayed so the data can be used in performing analyses and cost studies. Average costs are calculated using the end item's density. NET REPARABLES represent the cost with the Major Subordinate Command (MSC) specific credit rates applied (detailed in Section 1 - Overview).

<p align="center"><b>M220A1 TOW</b>  <b>FY 94 TOTAL ARMY COST SUMMARY</b>  <b>(FY 94 Constant Dollars)</b></p>
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<div>DENSITY</div> <div>NUMBER OF SYSTEMS2,998</div>		<div>DEPOT END ITEM MAINTENANCE (5.061)</div> <div>TOTAL\$70,699</div> <div>QUANTITY COMPLETED8</div> <div>AVG COST/END ITEM\$8,837.38</div>																			
<div>CLASS III-POL (5.05)</div> <div>NOT APPLICABLE</div>		<div>DEPOT SECONDARY ITEM MAINTENANCE</div> <div>TOTAL\$1,017,223</div> <div>QUANTITY COMPLETED1,089</div> <div>AVG COST/SECONDARY ITEM\$934.09</div>																			
<div>CLASS V-AMMUNITION (2.11)</div> <div>NOT AVAILABLE</div>		<div>INTERMEDIATE MAINTENANCE</div> <table><tr><td></td><td>DS/GS</td><td>CIVILIAN</td></tr><tr><td>MIL/CIV LABOR COST</td><td>\$335,406</td><td>\$862</td></tr><tr><td>AVG COST/SYSTEM</td><td>\$111.88</td><td>\$0.29</td></tr><tr><td colspan="3"> </td></tr><tr><td>MAINTENANCE MANHOURS</td><td>20,193</td><td>41</td></tr><tr><td>MMHs/SYSTEM</td><td>6.74</td><td>0.01</td></tr></table>			DS/GS	CIVILIAN	MIL/CIV LABOR COST	\$335,406	\$862	AVG COST/SYSTEM	\$111.88	\$0.29				MAINTENANCE MANHOURS	20,193	41	MMHs/SYSTEM	6.74	0.01
	DS/GS	CIVILIAN																			
MIL/CIV LABOR COST	\$335,406	\$862																			
AVG COST/SYSTEM	\$111.88	\$0.29																			
MAINTENANCE MANHOURS	20,193	41																			
MMHs/SYSTEM	6.74	0.01																			
<div>CLASS IX MATERIEL-PARTS (5.04/5.03)</div> <table><tr><td></td><td>FY 94</td><td>AVG COST</td></tr><tr><td></td><td>DOLLARS</td><td>PER SYSTEM</td></tr><tr><td>CONSUMABLES</td><td>\$1,354,591</td><td>\$451.83</td></tr><tr><td>NET REPARABLES</td><td>\$1,983,766</td><td>\$661.70</td></tr><tr><td>NET TOTAL COSTS</td><td>\$3,338,357</td><td>\$1,113.53</td></tr></table>					FY 94	AVG COST		DOLLARS	PER SYSTEM	CONSUMABLES	\$1,354,591	\$451.83	NET REPARABLES	\$1,983,766	\$661.70	NET TOTAL COSTS	\$3,338,357	\$1,113.53			
	FY 94	AVG COST																			
	DOLLARS	PER SYSTEM																			
CONSUMABLES	\$1,354,591	\$451.83																			
NET REPARABLES	\$1,983,766	\$661.70																			
NET TOTAL COSTS	\$3,338,357	\$1,113.53																			

The following graph and table display FY 94 Class IX costs for consumables (CONS), reparable, (REPS), and net reparable (NET REPS) by MACOM. CONS and REPS are the total costs of requisitions recorded in the Logistic Intelligence File (LIF). NET REPS are the cost to the customer in the field and are calculated by applying an MSC-specific credit rate at the NSN level. TOTAL ARMY (TA) costs are the summation of costs across all MACOMs in the table. NET TOTAL COSTS are the sums of the costs of CONS and NET REPS. NUMBER OF SYSTEMS is the density recorded in the Continuing Balance System - Expanded (CBS-X). AVG PER SYSTEM costs are calculated by dividing the costs in NET TOTAL COSTS by the number of systems for each MACOM.

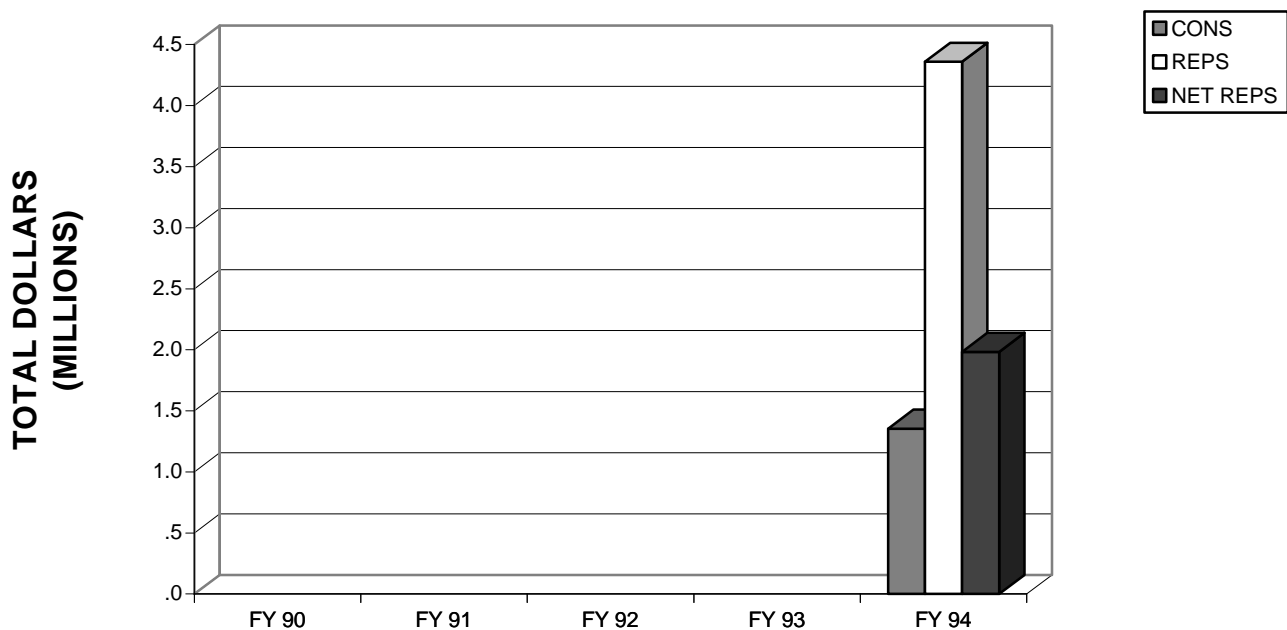
### M220A1 TOW



M220A1 TOW FY 94 MACOM CLASS IX COSTS							
MACOM		CONS	REPS	NET REPS	NET TOTAL COSTS	NUMBER OF SYSTEMS	AVG PER SYSTEM
CODE	NAME						
FC	FORSCOM	757,477	3,011,242	1,367,914	2,125,391	735	2,892
E1	USAREUR	17,649	147,980	67,092	84,741	51	1,662
P8	EUSA	41,523	86,591	39,343	80,866	65	1,244
P1	USARPAC	124,753	167,882	75,885	200,638	60	3,344
SU	USARSO	7,366	4,919	2,226	9,592	4	2,398
AO	USASOC	4,159	3,555	1,614	5,773	5	1,155
TC	TRADOC	85,341	289,030	131,816	217,157	210	1,034
NG	ARNG	315,020	647,178	297,876	612,896	1,726	355
AR	USAR	1,303	0	0	1,303	142	9
TA	TOTAL ARMY	1,354,591	4,358,377	1,983,766	3,338,357	2,998	1,114

The following graph and table display FY 90-94 Class IX costs for consumables (CONS), reparable (REPS) and net reparable (NET REPS) by Total Army. The Total Army costs are a summation of all the MACOMs displayed on the previous page. CONS and REPS are the total cost of requisitions recorded in the Logistic Intelligence File (LIF). NET REPS are the cost to the customer in the field and are calculated by applying an MSC-specific credit rate at the NSN level. NET TOTAL COSTS are the sums of the costs of CONS and NET REPS. NUMBER OF SYSTEMS is the density recorded in the Continuing Balance System - Expanded (CBS-X). AVG PER SYSTEM costs are calculated by dividing the costs in NET TOTAL COSTS by the number of systems in the Total Army for the fiscal year. Blank rows indicate system was not tracked in the OSMIS database during that

### M220A1 TOW



M220A1 TOW FIVE YEAR TOTAL ARMY CLASS IX COSTS						
FISCAL YEAR	CONS	REPS	NET REPS	NET TOTAL COSTS	NUMBER OF SYSTEMS	AVG PER SYSTEM
FY 90						
FY 91						
FY 92						
FY 93						
FY 94	1,354,591	4,358,377	1,983,766	3,338,357	2,998	1,114

The Total Army Class IX costs from the previous pages are broken out by Work Breakdown Structure (WBS) in the following table. The FY 94 WBS Class IX costs for consumables (CONS) and reparable (REPS) are the total cost of requisitions recorded in the Logistic Intelligence File (LIF). The NET REPS are the cost to the customer in the field and are calculated by applying an MSC-specific credit rate at the NSN level. The TOTAL costs are a summation of all the WBS elements displayed in the table. NET TOTAL COSTS are the sum of the costs in CONS and NET REPS. NUMBER OF SYSTEMS is the density recorded in the Continuing Balance System-Expanded (CBS-X). AVG PER SYSTEM costs are calculated by dividing the costs in NET TOTAL COSTS by the total number of systems in the Army.

<b>M220A1 TOW</b> <b>FY 94 TOTAL ARMY WORK BREAKDOWN STRUCTURE COSTS</b>							
WBS	NAME	CONS	REPS	NET REPS	NET TOTAL COSTS	NUM OF SYSTEMS	AVG PER SYSTEM
01	PROPULSION	0	0	0	0	0	0
02	PAYLOAD	0	0	0	0	0	0
03	AIRFRAME	0	0	0	0	0	0
04	RE-ENTRY SYSTEM	0	0	0	0	0	0
05	POST BOOST SYS	0	0	0	0	0	0
06	GUIDANCE/CONTROL	0	0	0	0	0	0
07	ORDNANCE INIT	0	0	0	0	0	0
08	AIRBORNE TEST EQ	0	0	0	0	0	0
09	AIRBORNE TRAIN EQ	0	0	0	0	0	0
10	AUXILIARY EQUIP	0	0	0	0	0	0
11	INT,ASSY,TEST,C/O	0	0	0	0	0	0
12	OTHER - MISSILE	9,322	130,032	58,775	68,097	2,998	23
20	SURV, ID, TRACKING	225,701	573,062	271,608	497,309	2,998	166
21	LAUNCH/GUIDANCE	396	501,865	226,843	227,239	2,998	76
22	COMMUNICATIONS	64,464	6,653	3,421	67,885	2,998	23
23	CMD/LAUNCH APP	0	0	0	0	0	0
24	CMD/LAUNCH SYS	0	0	0	0	0	0
25	LAUNCHER EQUIP	343,918	2,492,278	1,127,290	1,471,208	2,998	491
26	AUXILIARY EQUIP	39,460	614,078	277,564	317,024	2,998	106
27	INT,ASSY,TEST,C/O	0	0	0	0	0	0
28	OTHER - LAUNCHER	671,330	40,409	18,265	689,595	2,998	230
	TOTAL	1,354,591	4,358,377	1,983,766	3,338,357	2,998	1,114

The following table displays FY 90-94 Class IX costs by Work Breakdown Structure (WBS) for the Total Army. NET TOTAL COSTS are summation for all the WBS elements displayed on the previous page and are a sum of the costs of CONS and NET REPS. NUMBER OF SYSTEMS is the density recorded in the Continuing Balance System-Expanded (CBS-X). AVG PER SYSTEM costs are calculated by dividing the costs in NET TOTAL COSTS by the total number of systems in the Army for the fiscal year. Blank columns indicate system was not tracked in the OSMIS database during that fiscal year.

<b>M220A1 TOW</b>						
<b>FIVE YEAR TOTAL ARMY WORK BREAKDOWN STRUCTURE COSTS</b>						
WBS	NAME	FY 90 NET TOTAL COSTS	FY 91 NET TOTAL COSTS	FY 92 NET TOTAL COSTS	FY 93 NET TOTAL COSTS	FY 94 NET TOTAL COSTS
01	PROPULSION					0
02	PAYLOAD					0
03	AIRFRAME					0
04	RE-ENTRY SYSTEM					0
05	POST BOOST SYS					0
06	GUIDANCE/CONTROL					0
07	ORDNANCE INIT					0
08	AIRBORNE TEST EQ					0
09	AIRBORNE TRAIN EQ					0
10	AUXILIARY EQUIP					0
11	INT,ASSY,TEST,C/O					0
12	OTHER - MISSILE					68,097
20	SURV, ID, TRACKING					497,309
21	LAUNCH/GUIDANCE					227,239
22	COMMUNICATIONS					67,885
23	CMD/LAUNCH APP					0
24	CMD/LAUNCH SYS					0
25	LAUNCHER EQUIP					1,471,208
26	AUXILIARY EQUIP					317,024
27	INT,ASSY,TEST,C/O					0
28	OTHER - LAUNCHER					689,595
	TOTAL					3,338,357
	NUM OF SYSTEMS					2,998
	AVG PER SYSTEM					1,114

**M220A1 TOW**  
**TOP 40 COST DRIVERS**  
**CLASS IX CONSUMABLES (NON-DLRs)**

	NSN	NOMENCLATURE	WBS	MRC	ARI	MATCAT	FY 94 AMDF UNIT PRICE	FY 94 QTY
1.	6135010363495	BATTERY,PRIMARY,LIT	28	Z		G22TJ	51.54	8,958.86
2.	6140004548261	BATTERY ASSY BB-287	28	F		L21E2	509.00	261.13
3.	5999010189791	ELECTRONIC COMPONEN	25B	F		L21E2	4,079.00	23.01
4.	5999010189790	ELECTRONIC COMPONEN	25B	F		L21E2	4,230.00	13.00
5.	5855013063809	COLLIMATOR,BORESIGH	20	F		L21FG	6,296.00	6.69
6.	5855012678816	AMPLIFIER ASSEMBLY	20	F		L21FG	5,091.00	7.26
7.	5935011173304	ADAPTER,CONNECTOR	25B	Z		K22MV	89.22	231.87
8.	5999010189789	ELECTRONIC COMPONEN	25B	F		Q2100	1,389.50	12.00
9.	1440001960038	TUBE,GUIDED MISSILE	25B	F		L21E2	613.00	26.01
10.	6150011442920	CABLE ASSEMBLY,SPEC	20	Z		L22FG	228.00	68.37
11.	5855011434470	BATTERY POWER CONDI	20	F		L21FG	3,124.00	4.57
12.	6150011439399	CABLE ASSEMBLY,SPEC	20	Z		L22FG	295.00	45.11
13.	6150001403943	CABLE ASSEMBLY,SPECI	26	Z		L22E2	408.00	32.30
14.	6625010872534	ADAPTER,TEST	28	F		L21E2	4,517.00	2.79
15.	5975012576416	JUNCTION BOX ASSEMB	25B	F		Q2100	12,437.38	1.00
16.	5855011439396	JUNCTION BOX ASSY	20	F		Q2200	3,303.76	3.71
17.	5855011161087	AMPLIFIER ASSEMBLY	20	F		L21FG	5,091.00	2.18
18.	6140010565321	BATTERY,STORAGE	28	Z		G22TK	48.82	197.01
19.	5999010189788	ELECTRONIC COMPONEN	25B	F		Q2100	562.00	16.00
20.	6645004434932	TIMER, INTERVAL	28	F		E2100	806.83	11.00
21.	5995004214064	CABLE ASSEMBLY,SPECI	22	Z		L22E2	318.00	26.15
22.	5855012485753	AMPLIFIER ASSEMBLY	20	F		L21FG	5,091.00	1.54
23.	5995010774627	CABLE ASSEMBLY,SPEC	22	Z		Q2200	146.27	48.36
24.	5855010720410	TEST SET,BOX 2 OF 2	20	F		L21FG	7,522.00	0.94
25.	5995008232837	CABLE ASSEMBLY,SPEC	22	Z		Q2200	59.55	115.73
26.	1440004561731	MOUNT,TRIPOD,GUIDED	25B	F		L21E2	954.00	7.10
27.	5855012925639	EYESHIELD,OPTICAL I	20	Z		Q2200	79.33	83.96
28.	1440011147880	CASE ASSEMBLY	25B	F		Q2100	2,165.05	3.01
29.	7240003600094	ADAPTER KIT,GRAVITY	28	Z		E2200	25.83	243.71
30.	5975012490740	JUNCTION BOX ASSEMB	20	F		L21FG	1,421.00	4.36
31.	5995011568119	WIRING HARNESS,BRAN	22	Z		Q2200	452.23	13.68
32.	6130011024399	CASE,BATTERY CHARGE	26	F		Q2200	1,843.35	3.00
33.	5995008890911	CABLE ASSEMBLY,SPEC	22	Z		Q2200	97.45	55.00
34.	1440012712955	DETECTOR ASSY,WF	25B	Z		L24E2	1,684.00	3.00
35.	1440004780334	STRAP ASSEMBLY,MISS	25B	Z		Q2200	61.86	81.00
36.	5855011096432	CRYOSTAT ASSEMBLY	20	F		L21FG	1,770.00	2.71
37.	4820010678675	VALVE,ACTUATOR	25B	Z		J2200	1,139.21	3.99
38.	1440011781148	CIRCUIT CARD ASSEMB	25B	Z		L22E2	1,192.00	3.50
39.	5995009857618	CABLE ASSEMBLY,SPEC	22	Z		Q2200	49.30	82.36
40.	5855011182221	CABLE ASSEMBLY,FLEX	20	Z		L22FG	917.00	4.40

NUMBER OF SYSTEMS	2,998
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NOTE: ROWS MAY NOT CALCULATE DUE TO ROUNDING



**M220A1 TOW  
CONSUMABLES (NON-DLRs)**

EXTENDED COST (QTY * UNIT PRICE)	AVERAGE COST	AVERAGE QUANTITY	FY 90-94 FIVE YEAR AVERAGE	
	PER SYSTEM	PER 100 SYSTEMS	QTY	EXTENDED COST
461,739	154.02	298.8279		
132,915	44.33	8.7101		
93,858	31.31	0.7675		
54,990	18.34	0.4336		
42,120	14.05	0.2231		
36,961	12.33	0.2422		
20,686	6.90	7.7342		
16,674	5.56	0.4003		
15,945	5.32	0.8676		
15,589	5.20	2.2805		
14,277	4.76	0.1524		
13,308	4.44	1.5047		
13,179	4.40	1.0774		
12,603	4.20	0.0931		
12,437	4.15	0.0334		
12,257	4.09	0.1237		
11,099	3.70	0.0727		
9,617	3.21	6.5714		
8,992	3.00	0.5337		
8,875	2.96	0.3669		
8,316	2.77	0.8722		
7,840	2.62	0.0514		
7,073	2.36	1.6131		
7,071	2.36	0.0314		
6,892	2.30	3.8602		
6,773	2.26	0.2368		
6,661	2.22	2.8005		
6,517	2.17	0.1004		
6,295	2.10	8.1291		
6,196	2.07	0.1454		
6,186	2.06	0.4563		
5,530	1.84	0.1001		
5,360	1.79	1.8346		
5,052	1.69	0.1001		
5,011	1.67	2.7018		
4,796	1.60	0.0904		
4,545	1.52	0.1331		
4,172	1.39	0.1167		
4,060	1.35	2.7472		
4,035	1.35	0.1468		
1,126,502	83.2%	TOP 40		
228,089	16.8%	OTHERS		
=====				
1,354,591		TOTAL		

**M220A1 TOW**  
**TOP 40 COST DRIVERS**  
**CLASS IX REPARABLES (DLRs)**

	NSN	NOMENCLATURE	WBS	MRC	ARI	MATCAT	FY 94 AMDF UNIT PRICE		FY 94 QTY
							W/O CREDIT	W/CREDIT	
1.	1440012717428	SIGHT,OPTICAL,GUIDE	25B	D	R	L21E2	31,145.00	14,077.54	37.00
2.	1440011153405	TRAVERSING UNIT,GU	25B	D	R	L21E2	16,148.00	7,298.90	32.40
3.	6150011029170	CABLE ASSEMBLY	26	D		L21E2	2,763.00	1,248.88	178.52
4.	1430013288267	MISSILE GUIDANCE SE	21	D	R	L21E2	23,460.00	10,603.92	19.00
5.	1440012156014	SIGHT,OPTICAL,GUIDE	25B	D	R	L21E2	19,101.00	8,633.65	7.56
6.	5855011433182	BASIC SIGHT ASSEMB	20	D	R	L21FG	29,463.00	13,317.28	4.83
7.	1440011153397	WIRING HARNESS,BR/	25B	D	R	L21E2	1,679.00	758.91	47.29
8.	5855010472136	PACK,CARTRIDGE,COI	20	D	D	L21FG	902.00	407.70	86.06
9.	5855012485720	BASIC SIGHT ASSEMB	20	D	D	L21FG	29,463.00	13,317.28	2.17
10.	5855012525422	DETECTOR-DEWAR	20	D		G21SV	3,826.00	2,096.65	13.35
11.	5855013074519	AFOCAL COVER	20	D	R	L24FG	10,261.00	4,637.97	6.00
12.	1440004559406	TRACKER ASSEMBLY	25B	D	R	L21E2	3,016.00	1,363.23	17.51
13.	1440011985891	SIGHT,OPTICAL,GUIDE	25B	D		L21E2	13,097.00	5,919.84	4.00
14.	5855011729992	DETECTOR-DEWAR	20	D	D	G21SV	3,826.00	2,096.65	10.97
15.	5998013272071	CIRCUIT CARD ASSEM	25B	D	R	L21E2	909.00	410.87	52.00
16.	5999012226920	CIRCUIT CARD ASSEM	25B	D	R	L21E2	1,121.00	506.69	41.00
17.	1440012709214	TRACKER ASSEMBLY	25B	D	R	L24E2	5,609.00	2,535.27	8.00
18.	1450011711656	CONDITIONER,POWER	26	D	R	L21E2	3,800.00	1,717.60	10.58
19.	4935011843909	CASE,TEST SET	12	D	D	L21E2	6,541.00	2,956.53	6.00
20.	5999011457729	CIRCUIT CARD ASSEM	25B	D	R	L21E2	2,760.00	1,247.52	13.89
21.	4935011828311	CASE,TEST SET	12	D	D	L21E2	6,119.00	2,765.79	6.00
22.	1430011439408	MISSILE GUIDANCE SE	21	D	R	L21E2	39,396.00	17,806.99	0.87
23.	1440012717225	SENSOR ASSEMBLY	25B	D	E	L21E2	2,641.00	1,193.73	12.00
24.	5999011029316	CIRCUIT CARD ASSEM	25B	D	D	L21E2	1,197.00	541.04	24.47
25.	5895012753551	RECEIVER-TRANSMIT	25B	D	C	L21E2	1,438.00	649.98	16.01
26.	1440004622553	DAMPER,AZIMUTH	25B	D	R	L21E1	2,694.00	1,217.69	8.53
27.	6650004007621	PRISM, BORESIGHT	28	D	R	L21E2	1,933.00	873.72	10.72
28.	1430006268322	DAMPER,AZIMUTH	21	D	D	L21E2	2,015.00	910.78	10.18
29.	5999011029320	CIRCUIT CARD ASSEM	25B	D	R	L21E2	533.00	240.92	36.07
30.	4935011193460	TEST SET,ELECTRICAL	12	D	D	L21E2	869.00	392.79	22.07
31.	5999011063163	CIRCUIT CARD ASSEM	25B	D	R	L21E2	1,882.00	850.66	9.86
32.	5855011195869	LED ARRAY	20	D	D	G21SN	1,650.00	904.20	7.83
33.	5999011099374	CIRCUIT CARD ASSEM	25B	D	R	L21E2	257.00	116.16	54.81
34.	1440010204297	DAMPER,ELEVATION	25B	D	D	L21E2	1,581.00	714.61	8.71
35.	1450011781157	CIRCUIT CARD ASSEM	26	D	D	L21E2	2,757.00	1,246.16	4.85
36.	5855012102999	BASIC SIGHT ASSEM	20	D		L21FG	32,337.00	14,616.32	0.39
37.	5855011439397	VEHICLE POWER CON	20	F	E	L21FG	1,635.00	739.02	7.49
38.	6130004539204	POWER SUPPLY TOW	26	D	R	L21E2	6,350.00	2,870.20	1.83
39.	5998011084211	CIRCUIT CARD ASSEM	25B	D	R	L21E2	903.00	408.16	12.82
40.	5855010694014	SCANNER,MECHANICAL	20	D		G21SV	2,548.00	1,396.30	3.50

NUMBER OF SYSTEMS	2,998
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NOTE: ROWS MAY NOT CALCULATE DUE TO ROUNDING

**M220A1 TOW  
REPARABLES (DLRs)**

EXTENDED COST (W/CREDIT) (QTY * UNIT PRICE)	AVERAGE COST (W/CREDIT)	AVERAGE QUANTITY	FY 90-94 FIVE YEAR AVERAGE	
	PER SYSTEM	PER 100 SYSTEMS	QTY	EXTENDED COST (W/CREDIT)
520,870	173.74	1.2342		
236,484	78.88	1.0807		
222,950	74.37	5.9546		
201,474	67.20	0.6338		
65,271	21.77	0.2522		
64,323	21.46	0.1611		
35,889	11.97	1.5774		
35,087	11.70	2.8706		
28,898	9.64	0.0724		
27,989	9.34	0.4453		
27,828	9.28	0.2001		
23,871	7.96	0.5841		
23,679	7.90	0.1334		
23,000	7.67	0.3659		
21,366	7.13	1.7345		
20,774	6.93	1.3676		
20,283	6.77	0.2668		
18,172	6.06	0.3529		
17,739	5.92	0.2001		
17,328	5.78	0.4633		
16,595	5.54	0.2001		
15,493	5.17	0.0290		
14,325	4.78	0.4003		
13,239	4.42	0.8162		
10,406	3.47	0.5340		
10,387	3.46	0.2845		
9,366	3.12	0.3576		
9,272	3.09	0.3396		
8,691	2.90	1.2031		
8,669	2.89	0.7362		
8,388	2.80	0.3289		
7,080	2.36	0.2612		
6,366	2.12	1.8282		
6,224	2.08	0.2905		
6,044	2.02	0.1618		
5,700	1.90	0.0130		
5,535	1.85	0.2498		
5,253	1.75	0.0610		
5,232	1.75	0.4276		
4,887	1.63	0.1167		

1,830,427	92.3%	TOP 40
153,339	7.7%	OTHERS
=====		
1,983,766		

The following table summarizes FY 94 Depot Maintenance Costs from the Master File Maintenance (MFM). Depot maintenance costs are displayed by cost elements for end item maintenance and secondary item maintenance. The OTHER cost columns represent work categories such as progressive maintenance, renovation, and fabrication/manufacture. For reporting purposes, TRANSPORTATION costs recorded in the World Aircraft Logistics Conference (WALC)/Special Aircraft Assignment Mission (SAAM) records are shown in the OTHER maintenance category.

<b>M220A1 TOW</b>							
<b>FY 94 DEPOT MAINTENANCE COSTS</b>							
COST ELEMENTS	END ITEM MAINTENANCE				SECONDARY ITEM MAINTENANCE		
	REPAIR	OVERHAUL	OTHER	MODIFICATION	REPAIR	OVERHAUL	OTHER
CIVILIAN LABOR	26,836	0	0	0	100,471	276,662	5,875
MILITARY LABOR	0	0	0	0	0	0	0
MATERIEL	12,052	0	0	0	57,658	174,588	8,128
TRANSPORTATION	0	0	0	0			
OVERHEAD	31,712	0	0	0	48,002	336,145	7,224
CONTRACT	0	0	0	0	0	0	0
OTHER	99	0	0	0	891	1,579	0
TOTAL	70,699	0	0	0	207,022	788,974	21,227
QTY COMPLETED	8	0	0	0	496	539	54
AVG COST	8,837	0	0	0	417	1,464	393

The table below summarizes FY 94 Intermediate Maintenance Costs from the Work Order Logistics File (WOLF) data. The labor hours and labor costs for Direct Support/General Support Intermediate Maintenance (DS/GS) and Civilian Maintenance are displayed by MACOM and Total Army. MACOM DS/GS LABOR COSTS are calculated by multiplying MACOM labor hours by the Army Manpower Cost System (AMCOS) E-5 composite standard rate (\$16.61). CIVILIAN LABOR COSTS are a summation from the source data.

<b>M220A1 TOW</b>					
<b>FY 94 INTERMEDIATE MAINTENANCE COSTS</b>					
MACOM	DS/GS LABOR HOURS	DS/GS LABOR COSTS	CIVILIAN LABOR HOURS*	CIVILIAN LABOR COSTS*	CIVILIAN LABOR COST/HOUR
FORSCOM	3,687	61,241	41	862	21.02
USAREUR	80	1,329			
EUSA	0	0			
USARPAC	499	8,288			
USARSO	16	266			
USASOC	0	0			
TRADOC	0	0	0	0	0.00
ARNG	14,943	248,203			
USAR	968	16,078			
TOTAL ARMY	20,193	335,406	41	862	21.02

\*TRADOC LABOR HOURS and LABOR COSTS include contractor hours and costs.

The following table summarizes FY 90-94 Depot Maintenance Costs. The depot maintenance data are recorded in MFM. FY 94 costs are a summation of the cost elements displayed on the previous page. END ITEM OVERHEAD costs were not separately identified prior to FY 92. TRANSPORTATION costs are recorded in the WALC/SAAM records. Blank columns indicate system was not tracked in the OSMIS database during that fiscal year.

<b>M220A1 TOW</b>										
<b>FIVE YEAR DEPOT MAINTENANCE COSTS</b>										
COST ELEMENTS	END ITEM MAINTENANCE					SECONDARY ITEM MAINTENANCE				
	FY 90	FY 91	FY 92	FY 93	FY 94	FY 90	FY 91	FY 92	FY 93	FY 94
CIVILIAN LABOR					26,836					383,008
MILITARY LABOR					0					0
MATERIEL					12,052					240,374
TRANSPORTATION					0					
OVERHEAD					31,712					391,371
CONTRACT					0					0
OTHER					99					2,470
TOTAL					70,699					1,017,223
QTY COMPLETED					8					1,089
AVG COST					8,837					934

The table below summarizes FY 90-94 Intermediate Maintenance Costs from WOLF. The fiscal year total costs for Direct/General Support Intermediate Maintenance (DS/GS) and Civilian Maintenance are displayed by MACOM and Total Army. MACOM DS/GS labor costs are calculated by multiplying MACOM labor hours by the Army Manpower Cost System (AMCOS) E-5 composite standard rate. DS/GS COST PER HR is the E-5 composite standard rate in FY 94 constant dollars. CIVILIAN LABOR COSTS are a summation from the source data. Blank columns indicate system was not tracked in the OSMIS database during that fiscal year.

<b>M220A1 TOW</b>										
<b>FIVE YEAR INTERMEDIATE MAINTENANCE COSTS</b>										
MACOM	DIRECT/GENERAL SUPPORT INTERMEDIATE MAINTENANCE (DS/GS)					CIVILIAN MAINTENANCE (CIV)				
	FY 90	FY 91	FY 92	FY 93	FY 94	FY 90	FY 91	FY 92	FY 93	FY 94
FORSCOM					61,241					862
USAREUR					1,329					
EUSA					0					
USARPAC					8,288					
USARSO					266					
USASOC					0					
TRADOC					0					0
ARNG					248,203					
USAR					16,078					
TOTAL ARMY					335,406					862
LABOR HRS					20,193					41
COST PER HR					16.61					21.02

The following list shows the FY 94 Secondary Item - Rebuilds/Overhauls Cost Drivers recorded in the MFM. AVG COST TO REBUILD/OVERHAUL is calculated by dividing the costs in FY 94 TOTAL COST TO REBUILD/OVERHAUL by FY 94 QTY COMPLETED.

M220A1 TOW					
FY 94 DEPOT SECONDARY ITEM MAINTENANCE - REBUILDS/OVERHAULS					
COST DRIVERS					
NSN	NOMENCLATURE	FY 94 AMDF PRICE	FY 94 TOTAL COST TO REBUILD/ OVERHAUL	FY 94 QTY COMPLETED	AVG COST TO REBUILD/ OVERHAUL
1440-01-215-6014	SIGHT,OPTICAL,GU	19,101	301,024	156	1,930
1440-01-115-3405	TRAVERSING UNIT,	16,148	187,063	111	1,685
1440-01-271-7428	SIGHT,OPTICAL,GU	31,145	120,981	37	3,270
1430-01-299-2287	MISSILE GUIDANCE	13,331	42,173	19	2,220
5999-01-145-7729	CIRCUIT CARD ASS	2,760	33,397	52	642
5999-01-109-9375	CIRCUIT CARD ASS	715	28,656	63	455
6130-01-224-7162	POWER SUPPLY	4,075	16,583	9	1,843
5999-01-102-9320	CIRCUIT CARD ASS	533	8,174	11	743
1440-01-241-1048	TRUNNION ASSEMBL	2,218	8,125	10	813
5998-01-244-5195	CIRCUIT CARD ASS	909	3,726	11	339

The following list shows the FY 94 Secondary Item Maintenance - Repairs Cost Drivers recorded in MFM. AVG COST TO REPAIR is calculated by dividing the costs in FY 94 TOTAL COST TO REPAIR by FY 94 QTY COMPLETED.

M220A1 TOW					
FY 94 DEPOT SECONDARY ITEM MAINTENANCE - REPAIRS					
COST DRIVERS					
NSN	NOMENCLATURE	FY 94 AMDF PRICE	FY 94 TOTAL COST TO REPAIR	FY 94 QTY COMPLETED	AVG COST TO REPAIR
5998-01-327-2071	CIRCUIT CARD ASS	909	86,113	217	397
5998-01-328-8287	CIRCUIT CARD ASS	484	33,561	142	236
5998-01-328-8288	CIRCUIT CARD ASS	1,400	23,810	96	248
1430-01-328-8267	MISSILE GUIDANCE	23,460	21,749	15	1,450
1450-01-171-1656	CONDITIONER,POWE	3,800	14,808	10	1,481
5999-01-232-2339	CIRCUIT CARD ASS	1,121	10,662	2	5,331
4935-01-114-3919	SHOP EQUIPMENT G	97,226	8,550	1	8,550
1430-01-299-2287	MISSILE GUIDANCE	13,331	4,854	1	4,854
1440-01-115-3295	CLAMP ASSEMBLY	1,665	2,915	12	243

The following list shows the FY 90-94 Secondary Item - Rebuild/Overhauls Cost Drivers recorded in MFM. These five year Cost Drivers were revised from previous years' reports, see Appendix A, Section 15 for further explanation. AVG COST TO REBUILD/OVERHAUL is calculated by dividing the costs in FY 90-94 TOTAL COST TO REBUILD/OVERHAUL by FY 90 -94 QTY COMPLETED.

<b>M220A1 TOW</b> <b>FIVE YEAR DEPOT SECONDARY ITEM MAINTENANCE - REBUILDS/OVERHAULS</b> <b>COST DRIVERS</b>					
NSN	NOMENCLATURE	FY 94 AMDF PRICE	FY 90-94 TOTAL COST TO REBUILD/ OVERHAUL	FY 90-94 QTY COMPLETED	AVG COST TO REBUILD/ OVERHAUL
1440-01-215-6014	SIGHT,OPTICAL,GU	19,101	301,024	156	1,930
1440-01-115-3405	TRAVERSING UNIT,	16,148	187,063	111	1,685
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1430-01-299-2287	MISSILE GUIDANCE	13,331	42,173	19	2,220
5999-01-145-7729	CIRCUIT CARD ASS	2,760	33,397	52	642
5999-01-109-9375	CIRCUIT CARD ASS	715	28,656	63	455
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1440-01-241-1048	TRUNNION ASSEMBL	2,218	8,125	10	813
5998-01-244-5195	CIRCUIT CARD ASS	909	3,726	11	339

The following list shows the FY 90-94 Secondary Item - Repairs Cost Drivers recorded in MFM. These five year Cost Drivers were revised from previous years' reports, see Appendix A, Section 15 for further explanation. AVG COST TO REPAIR is calculated by dividing the costs in FY 90-94 TOTAL COST TO REPAIR by FY 90-94 QTY COMPLETED.

<b>M220A1 TOW</b> <b>FIVE YEAR DEPOT SECONDARY ITEM MAINTENANCE - REPAIRS</b> <b>COST DRIVERS</b>					
NSN	NOMENCLATURE	FY 94 AMDF PRICE	FY 90-94 TOTAL COST TO REPAIR	FY 90-94 QTY COMPLETED	AVG COST TO REPAIR
5998-01-327-2071	CIRCUIT CARD ASS	909	86,113	217	397
5998-01-328-8287	CIRCUIT CARD ASS	484	33,561	142	236
5998-01-328-8288	CIRCUIT CARD ASS	1,400	23,810	96	248
1430-01-328-8267	MISSILE GUIDANCE	23,460	21,749	15	1,450
1450-01-171-1656	CONDITIONER,POWE	3,800	14,808	10	1,481
5999-01-232-2339	CIRCUIT CARD ASS	1,121	10,662	2	5,331
4935-01-114-3919	SHOP EQUIPMENT G	97,226	8,550	1	8,550
1430-01-299-2287	MISSILE GUIDANCE	13,331	4,854	1	4,854
1440-01-115-3295	CLAMP ASSEMBLY	1,665	2,915	12	243

**CHOOSE A VOLUME FOR MORE SYSTEMS**



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